

REASONING:

20. $\sqrt{x^2} = \sqrt{36}$ SQUARE ROOT
 $x = 6$
 $x = -6$

21. $x^2 - 6x + 2 = 0$ FORMULA
 $a = 1, b = -6, c = 2$
 $x = \frac{6 \pm \sqrt{(-6)^2 - 4(1)(2)}}{2(1)}$
 $x = \frac{6 \pm \sqrt{36 - 8}}{2} = \frac{6 \pm \sqrt{28}}{2}$

22. $x^2 - 5x + 4 = 0$ FACTOR
 $(x-4)(x-1) = 0$
 $x-4 = 0 \quad x-1 = 0$
 $x = 4 \quad x = 1$

20.) Explain why $\sqrt{x^2} = \sqrt{-81}$ DOES NOT have a solution.

There is no square root for a negative number.

$\sqrt{-81} = \text{error}$

21.) Which method can't you use to solve this problem? $x^2 - 47 = 0$

Circle one: Factoring Square Roots Quadratic Formula

Explain why: There are no factors of -47 that add up to zero.

22.) Which method can't you use to solve this problem? $x^2 + 7x = 0$

Circle one: Factoring Square Roots Quadratic Formula

Explain why: There is an x^2 term and x term so you cannot get x^2 alone.

23.) Which method can you use to solve all quadratic equations?

Circle one: Factoring Square Roots Quadratic Formula

Explain why:

24.) What are the two mistakes in setting up the quadratic formula:

Solve: $2x^2 - x - 6 = 0$
 $a = 2, b = -1, c = -6$
 $x = \frac{-(-1) \pm \sqrt{(-1)^2 - 4(2)(-6)}}{2(2)}$

#1 -b would be 1 because it's the opposite of b.

#2 c is -b, not +b - You have to use the sign in front.